

WHAT IS CLAIMED IS:

1. An automated system for experimentation comprising:
an experiment engine operable to define an experiment
relating to various treatments for a set of content elements,
5 the experiment engine operable to conduct the experiment over
a data network;
an observation module operable to collect observation
data relating to user behavior for each treatment; and
a scripting/scheduling engine operable to coordinate the
10 operation of the experiment engine and the observation module.
2. The system of Claim 1 wherein the experiment engine
is operable to identify elements of content which may
influence user behavior.
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3. The system of Claim 1 wherein the experiment engine
is operable to implement statistical sampling procedures to
deliver over the data network the various treatments to
respective control groups of users.
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4. The system of Claim 1 wherein the experiment engine
is operable to store data relating to the set of content
elements, objective user behavior to be observed, and users
allocated to receive treatment during the experiment.
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5. The system of Claim 1 wherein the experiment engine
comprises an experiment manager object operable to control the
execution of the experiment.
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6. The system of Claim 1 wherein the experiment engine
comprises an experiment manager object operable to specify
different treatments of content.

7. The system of Claim 1 wherein the experiment engine comprises an experiment manager object operable to define and implement statistical sampling procedures.

5 8. The system of Claim 1 wherein the experiment engine comprises an experiment manager object operable to record the experiment under way and the participating users.

10 9. The system of Claim 1 wherein the experiment engine comprises an experiment data store operable to store experiment data.

15 10. The system of Claim 1 wherein the data network comprises the Internet.

11. The system of Claim 1 wherein the observation module comprises an observation access object operable to provide access to the observation data.

20 12. The system of Claim 1 wherein the experiment engine is operable to generate a set of experiment rules for allocating treatments during the experiment.

25 13. The system of Claim 1 further comprising an interface in communication with the experiment engine, the interface operable to allow a user to interact with the experiment engine to define the experiment.

30 14. The system of Claim 1 further comprising an allocator module operable to systematically allocate a treatment to a user during the experiment.

15. An automated method for experimentation comprising:

defining an experiment relating to various treatments for
a set of content elements;
conducting the experiment over a data network;
collecting over the data network observation data
5 relating to user behavior for each treatment; and
generating at least one script to coordinate defining an
experiment, conducting the experiment, and collecting
observation data.

10 16. The method of Claim 15 wherein defining an
experiment comprises:

identifying desired objectives for user behavior;
identifying which treatments may influence user behavior
related to the desired objectives; and
15 generating the various treatments using different
combinations of the content elements.

17. The method of Claim 16 further comprising:

defining at least one control variable for the various
20 treatments; and
assigning a respective level for the control variable for
each treatment.

18. The method of Claim 15 wherein conducting the
25 experiment comprises:

selecting at least one treatment for delivery to users;
grouping users into a plurality of segments, each segment
comprising users with similar behavioral characteristics; and
specifying a particular segment of users to receive the
30 selected treatment.

19. The method of Claim 15 wherein conducting the
experiment comprises:

statistically sampling to specify a plurality of control groups, each control group comprising at least one user;

specifying a particular treatment to be delivered to the at least one user in each control group;

5 receiving identical requests for content from the respective at least one user in each of the control groups; and

in response to the identical requests, delivering to the at least one user in each control group a different treatment.

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20. The method of Claim 19 further comprising observing site-related behavior of users receiving the various treatments.

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15 21. The method of Claim 15 wherein the data network comprises the Internet.

20 22. The method of Claim 20 wherein collecting observation data comprises recording observed behavior in each control group during the experiment.

25 23. The method of Claim 15 further comprising identifying elements of content which potentially influence behavior of users.

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24. An automated system for experimentation comprising: a content system operable to store content, the content comprising a set of content elements; and

30 a communication management system in communication with the content system and operable to define an experiment relating to various treatments for the set of content elements, conduct the experiment over a data network, collect over the data network observation data relating to user behavior for each treatment, and generate at least one script

for coordinating the operation of the content system and the communication management system.

25. The system of Claim 24 wherein the communication
5 management system is operable to identify content elements
which may influence user behavior.

26. The system of Claim 24 wherein the communication
management system is operable to implement statistical
10 sampling procedures to deliver over the data network the
various treatments to respective control groups of users.

27. The system of Claim 24 wherein the communication
management system is operable to generate a set of experiment
15 rules for allocating treatments during the experiment.

28. The system of Claim 24 wherein the content system is
operable to allocate treatments to users according to the
experiment rules.

29. The system of Claim 24 wherein the communication
management system is operable to group users into a plurality
of segments, each segment comprising users with similar
behavioral characteristics.

30. The system of Claim 24 wherein said data network
comprises the Internet.

31. The system of Claim 24 wherein the communication
management system is operable to define at least one control
variable for the various treatments and to assign a respective
level for the control variable for each treatment.

32. The system of Claim 24 wherein the content system and the communication management system are connected to the data network.

5 33. The system of Claim 24 wherein the content system comprises an allocator module operable to support an interface with the communication management system.

10 34. The system of Claim 24 wherein the communication management system comprises an allocator interface object operable to support an interface with the content system.

15 35. The system of Claim 24 further comprising a content provider interface operable to support an interface between the communication management system and a manager user.

20 36. An automated system for experimentation comprising:
 an experiment engine operable to define an experiment relating to various treatments for a set of content elements,
 the experiment engine operable to allocate each treatment to a separate control group of users over a data network;
 an observation module operable to collect observation data relating to user behavior for each treatment; and
 a scripting/scheduling engine operable to coordinate the operation of the experiment engine and the observation module.

25 37. The system of Claim 36 wherein the experiment engine is operable to identify elements of content which may influence user behavior.

30 38. The system of Claim 36 wherein the experiment engine is operable to implement statistical sampling procedures to deliver over the data network the various treatments to respective control groups of users.

39. The system of Claim 36 wherein the data network comprises the Internet.

5 40. An automated method for experimentation comprising:
 defining an experiment relating to various treatments for
 a set of content elements;
 allocating each treatment to a separate control group of
 users over a data network;
10 collecting over the data network observation data
 relating to user behavior for each treatment; and
 generating at least one script to coordinate defining an
 experiment, conducting the experiment, and collecting
 observation data.

15 41. The method of Claim 40 wherein the data network comprises the Internet.

20 42. The method of Claim 40 further comprising
 identifying elements of content which potentially influence
 behavior of users.

25 43. A method for on-line experimentation comprising:
 defining a plurality of treatments for a set of content
 elements;
 providing a website on a data network;
 receiving requests for content from users accessing the
 website on the data network;
 statistically sampling to create at least one control
30 group of users;
 allocating over the data network a first treatment to
 each user in the control group;

allocating over the data network a second treatment to each user not in the control group;

collecting observation data for observed behavior of users in the control group and users not in the control group;
5 and

generating at least one script to coordinate allocating the first and second treatments and collecting observation data.

10 44. The method of Claim 43 further comprising identifying elements of content which may influence user behavior.

15 45. The method of Claim 43 wherein providing a website comprises providing a web page at which the set of content elements is available in the form of any of the treatments.

46. The method of Claim 43 wherein the data network comprises the Internet.